

**Amendments to the Specification:**

Please replace paragraphs [0018] to [0023] with the following amended paragraphs:

**[0018]** In more specifically describing the present invention, and as can be appreciated from Figure 1, the present invention provides a motor 10. The motor housing 72 may be composed of any suitable material, for example, die cast aluminum. The impeller 44 may be made of aluminum or any other suitable material. The impeller 44 may rotate on a shaft 22, which may also be made of aluminum or any other suitable material. The motor 10 may have an upstream side 46 and a downstream side 48. An axis 16 may be situated centrally within the motor 10. The shaft 22 may be coaxial with the motor housing 10. A bearing housing 92, houses lubricated bearings 94, which may be mounted around a cylindrical outer surface 98 of the shaft 22. The position of the bearing housing 92 may be adjacent to the downstream side 48 of the impeller 44. A bearing seal 84 may be situated downstream from the bearing housing 92, with an optional fluid channel 82 separating the bearing seal 84 from the bearing housing 92. A rotor 20 may include a plurality of rotor fins 24 that project axially upstream of rotor 20 and radially outward from the shaft 22 ~~from the shaft 22~~ 20, away from the cylindrical outer surface 98 of the shaft 22. A plurality of through inlet holes 12 may be formed in the motor housing ~~10-72~~; optionally the inlet holes 12 may be situated in a common radial plane. Likewise, a through outlet hole 14 may be formed in the motor housing ~~10-72~~. The through inlet hole 12 may be arranged in the same radial plane 18 as the outlet hole 14. The radial plane 18 may be perpendicular to the axis 16. An air guide plate 26 may be situated between the inlet hole 12 and the outlet hole 14. The air guide plate 26 may be formed to channel air from the inlet hole 12 and out through the outlet hole 14. The air guide plate 26 may also channel air from the inlet hole 12, over the

cylindrical outer surface 98 of the shaft 22, and into the plurality of rotor fins 24. Optionally, air from the inlet hole 12 flows adjacent to the downstream side 48 of the bearing seal 84.

[0019] Cooling air may enter the motor housing 40-72 through the inlet hole 12, flow adjacent to the bearing seal 84, and then flow along the outer surface 98 of the shaft 22. This air may then be drawn into the rotor 20, where the rotor fins 24 may act like a centrifugal blower and cause the air to exit radially outward through the outlet hole 14. The air guide plate 26 may act to separate the inlet air from the outlet air and to shield the bearing 94 from excess heat.

[0020] With continuing reference to Figure 1, the motor housing 40 72 may include a plurality of inlet holes 12, a plurality of outlet holes 14, and a plurality of air guide plates 26. The plurality of inlet holes 12 may be situated in the same radial plane 18. Likewise, the plurality of outlet holes 14 may be situated in the same radial plane 18. Optionally, the plurality of inlet holes 12 may be situated in the same radial plane 18 as the plurality of outlet holes 14. Further cooling may be conducted in which the cooling air enters (for example, radially inward) through the plurality of inlet holes 12, guided by the plurality of air guide plates 26 to flow adjacent to the bearing seal 84, and then flow along the outer surface 98 of the shaft 22. This air may then be drawn into the rotor 20, where the rotor fins 24 may act like a centrifugal blower and cause the air to exit radially outward through the plurality of outlet holes 14. The plurality of air guide plates 26 may serve to effectively shield the bearings 94 from excess heat.

[0021] In Figure 2, the exterior of the motor housing 40-72 shows an arrangement of the plurality of inlet holes 12 and the plurality of outlet holes 14. The inlet holes 12 and the outlet holes 14 may alternate. For example, each outlet hole 14 may be located in between two through inlet holes 12.

[0022] Returning to Figure 1, a method for cooling the motor 10 within the motor housing 72 may include providing the motor housing 72 with an axis 16. A through inlet hole 12 and a through outlet hole 14 may be provided in the motor housing 72. The method may continue with providing the rotor 20 on the shaft 22, with the shaft 22 optionally being coaxial with the motor housing 72. Next, air may be directed radially inward through the through inlet hole 12, into the motor housing 72, into a rotor 22 20, and radially outward through the through outlet hole 14. The method may include using the through inlet hole 12 and the through outlet hole 14 in the same radial plane 18. The radial plane 18 may be perpendicular to the axis 16 of the motor housing 72.

[0023] Air may be directed radially inward through a plurality of through inlet holes 12 in the motor housing 72, and radially outward through a plurality of through outlet holes 14 in the motor housing 72. During this method, air may be directed over the outer surface 98 of the shaft 22 before the air is directed into the rotor 20. Also, air may be directed over the surface 98 of the shaft 22 before accelerating air radially outward through the through outlet hole 14.